

Appl. No. : 10/082,626
Filed : February 21, 2002

AMENDMENTS TO THE CLAIMS

WHAT IS CLAIMED IS:

1. (Currently amended) A filter apparatus for use with a pump, said filter apparatus comprising:
 - a filter element;
 - a supply line for delivery of a flushing medium;
 - a filter basket, wherein said filter element extends about at least a portion of said filter basket, and wherein said filter basket comprises:
 - a manifold, comprising:
 - a flushing medium supply opening in a first surface thereof for receiving said supply line;
 - a plurality of apertures in a second surface of said manifold; and
 - an internal chamber located between said first surface and said second surface and fluidly connecting said flushing medium supply opening with said plurality of apertures; and
 - a plurality of tubes, wherein each tube of said plurality of tubes extends from one of said plurality of apertures and includes a plurality of perforations such that a flushing medium may flow from said supply line through the internal chamber into the plurality of tubes and through said perforations to backflush said filter element.
2. (Original) The filter apparatus of Claim 1, further including a submersible pump with an electrical motor within the filter basket.
3. (Original) The filter apparatus of Claim 2, wherein the manifold further comprises a first hole therein, wherein a pump discharge line passes through said first hole and connects to said pump.
4. (Original) The filter apparatus of Claim 2, wherein the manifold further comprises a second hole therein, wherein an electrical supply line passes through said second hole and is electrically connected to said motor.
5. (Original) The filter apparatus of Claim 1, wherein the filter basket is substantially cylindrical.

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6. (Currently amended) The filter apparatus of Claim 1, wherein the supply line is configured to deliver a flushing medium ~~is air~~ selected from a group consisting of air, water, nitrogen, carbon dioxide or mixtures thereof.

7. (Original) The filter apparatus of Claim 1, wherein the filter element is a filter sock.

8. (Original) The filter apparatus of Claim 1, wherein each tube comprises two rows of perforations along the length of the tube, said rows positioned about 180 degrees apart.

9. (Original) The filter apparatus of Claim 1, wherein the filter basket comprises six tubes.

10. (Original) The filter apparatus of Claim 1, further including a bottom plate removably attached to a lower end of the plurality of tubes.

11. (Original) The filter apparatus of Claim 1, further including a bottom plate with an opening therein through which a submersible pump can be inserted.

12. (Original) A filter apparatus for use with a submersible pump, said filter apparatus comprising:

a filter element;

a filter basket, wherein said filter element extends about at least a portion of said filter basket, and wherein said filter basket comprises:

a manifold comprising an internal chamber fluidly connecting a flushing medium supply opening with a plurality of apertures; and

a plurality of tubes, wherein each tube of said plurality of tubes extends from one of said plurality of apertures so as to form a substantially cylindrical filter basket, and wherein said tubes have a plurality of perforations for directing a flushing medium to impinge upon an interior surface of the filter element to dislodge or expel particulate material entrapped on the filter element.

13. (Original) The filter apparatus of Claim 12, further including a submersible pump and an electrical motor within the filter basket.

14. (Original) The filter apparatus of Claim 12, wherein each tube comprises two rows of perforation along the length of the tube, said rows positioned about 180 degrees apart.

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15. (Original) The filter apparatus of Claim 12, wherein the manifold further comprises a first hole therein, wherein a pump discharge line passes through said first hole and connects to said pump.

16. (Original) The filter apparatus of Claim 12, wherein the filter element is a synthetic filter sock.

17. (Original) The filter apparatus of Claim 12, wherein the tubes are heat fused to the manifold.

18. (Original) The filter apparatus of Claim 12, wherein the tubes are welded to the manifold.

19. (Original) The filter apparatus of Claim 12, wherein the tubes are glued to the manifold.

20. (Original) The filter apparatus of Claim 12, wherein the filter basket comprises six tubes.

21. (Original) The filter apparatus of Claim 12, further including a bottom plate removably attached to a lower end of the plurality of tubes.

22. (Original) The filter apparatus of Claim 12, further including a bottom plate with an opening therein through which a submersible pump can be inserted.

23. (Currently amended) A system for cleaning a filter apparatus used for screening the intake of a pump, said system comprising:

a supply tank for storing a pressurized flushing medium;

a supply line for delivery of the flushing medium;

a filter apparatus comprising:

a filter element;

a filter basket, wherein said filter element extends about at least a portion of said filter basket, and wherein said filter basket comprises:

a manifold, comprising:

a flushing medium supply opening in a first surface thereof for receiving said supply line;

a plurality of apertures in a second surface of said manifold; and

an internal chamber located between said first surface and said second surface and fluidly connecting said flushing medium supply opening with said plurality of apertures; and

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a plurality of tubes, wherein each tube of said plurality of tubes extends from one of said plurality of apertures and includes a plurality of perforations for directing the flushing medium to impinge upon an interior surface of the filter element to dislodge or expel particulate material entrapped on the filter element.

24. (Original) The system of Claim 23, further including a submersible pump with an electrical motor within the filter basket.

25. (Original) The system of Claim 23, wherein the filter basket is substantially cylindrical.

26. (Currently amended) The system of Claim 23, wherein the supply line is configured to deliver a flushing medium ~~is air~~ selected from a group consisting of air, water, nitrogen, carbon dioxide or mixtures thereof.

27. (Original) The system of Claim 23, wherein the filter element is a filter sock.

28. (Original) The system of Claim 23, wherein each tube comprises two rows of perforations extending along the length of the tube, said rows positioned about 180 degrees apart.

29. (Original) The system of Claim 23, further including a bottom plate removably attached to a lower end of the plurality of tubes.

30. (Original) The filter apparatus of Claim 23, further including a bottom plate with an opening therein through which a submersible pump can be inserted.

31. (Withdrawn) A method of flushing a filter apparatus used to screen the intake of a pump, the method comprising:

encasing pump suction inlet in a filter basket comprising a plurality of tubes, wherein each tube has at least one perforation therein;

surrounding at least a portion of the filter basket with a filter element such that a fluid to be pumped passes through the filter element to reach the pump suction inlet;

directing a flushing medium out of the perforations such that the flushing fluid is sprayed in an outwardly direction against interior surfaces of the filter element to dislodge or expel entrapped particulate material.

32. (Withdrawn) The method of Claim 31, wherein the flushing medium is air.

33. (Withdrawn) The method of Claim 31, wherein the flushing medium is water.

34. (Withdrawn) The method of Claim 31, further including encasing a pump in the filter basket.

35. (Withdrawn) The method of Claim 31, wherein directing the flushing medium includes directing the flushing medium out of two rows of perforations longitudinally spaced along each tube.

36. (Withdrawn) A filter apparatus for filtering a fluid intake of a pump, the apparatus comprising:

means for encasing a pump suction inlet in a filter basket;
means for filtering a fluid to be pumped before it enters the pump suction inlet;
means for directing a flushing medium from the means for encasing the pump suction inlet such that the flushing fluid is sprayed in an outwardly direction against filtering means to dislodge or expel entrapped particulate material.

37. (Withdrawn) The filter apparatus of Claim 36, wherein the flushing medium is air.

38. (Withdrawn) The filter apparatus of Claim 36, wherein the flushing medium is water.

39. (New) A filter apparatus for use with a pump, said filter apparatus comprising:
a filter element;
a supply line for delivery of a flushing medium;
a filter basket;
a submersible pump with an electrical motor within said filter basket,
wherein said filter element extends about at least a portion of said filter basket, and
wherein said filter basket comprises:
a manifold, comprising:
a flushing medium supply opening in a first surface thereof for receiving said supply line;
a plurality of apertures in a second surface of said manifold; and
an internal chamber formed between said first surface and said second surface fluidly
connecting said flushing medium supply opening with said plurality of apertures; and
a plurality of tubes, wherein each tube of said plurality of tubes extends from one of said
plurality of apertures and includes a plurality of perforations such that a flushing medium may
flow from said supply line through the internal chamber into the plurality of tubes and through
said perforations to backflush said filter element.

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40. (New) The filter apparatus of Claim 39, wherein the manifold further comprises a first hole therein, and wherein a pump discharge line passes through said first hole and connects to said pump.

41. (New) The filter apparatus of Claim 39, wherein the manifold further comprises a second hole therein, and wherein an electrical supply line passes through said second hole and is electrically connected to said motor.

42. (New) The filter apparatus of Claim 1, wherein the manifold further comprises a first hole therein, and wherein a pump suction line passes through said first hole and connects to a pump.

43. (New) The filter apparatus of Claim 23, wherein the manifold further comprises a first hole therein, and wherein a pump suction line passes through said first hole and connects to a pump.